

Charging Ahead: Positioning Battery Storage for Success in EDAM and Markets+

The Western power market is entering a new era, and for battery and renewable developers, the stakes have never been higher. With CAISO's Extended Day-Ahead Market (EDAM) and SPP's Markets+ both vying to become the dominant regional platform, choosing where—and how—to operate could define project success. These evolving markets will shape everything from dispatch signals to revenue opportunities. Here's what you need to know to position your battery assets for maximum value in this shifting landscape.

Here's what you need to know about EDAM and Markets+ and how they will impact clean energy development in the West.

What are EDAM and Markets+?

EDAM and Markets+ are day-ahead electricity markets designed to build on the benefits of the existing CAISO Western Energy Imbalance Market (WEIM) and SPP Western Energy Imbalance Service (WEIS). Balancing Area Authorities (BAAs) across the Western Interconnection may choose to join either market. By doing so, give EDAM and Markets+ control over scheduling and dispatching their generation assets in the day-ahead and real-time energy markets.

Importantly, these markets are not full Regional Transmission Organizations (RTOs). Each BAA will retain responsibility for transmission and reliability planning, resource procurement, and ancillary services. The main goal of both markets is to improve regional coordination by optimizing use of generation and transmission across a broader footprint—lowering system costs and reducing renewable curtailments.

Market	Utility Participants	Market Products	Key Milestones
CAISO EDAM	Fully committed: - CAISO, PacifiCorp, PGE, BANC, SMUD, LADWP. Likely: - NV Energy, Idaho Power, PNM, BHE Montana, Arizona G&T Co-ops, WAPA Sierra Nevada	Energy: - Yes, day-ahead and real-time. Capacity: - No, but California LSEs must still procure RA. BAAs retain their responsibility for procurement. Ancillaries: - No, BAs must provide their own.	- Trial run Fall 2025. - Operations begin Spring 2026. - PacifiCorp spring 2026 - PGE fall 2026 - BANC spring 2027 - LADWP mid-2027 - Others likely 2027-28
SPP Markets+	Likely: - APS, SRP, TEP, BPA, Xcel (PSCo), Tacoma, PSE, Chelan County PUD, Grant County PUD.	Energy: - Yes, day-ahead and real-time. Capacity: - No, but BAAs are required to join Western Resource Adequacy Program (WRAP). Ancillaries: - No, BAs must provide their own.	- Operations begin early 2027. - Most utilities expected to begin in 2027-28

Information as of April 2025.

How do these markets impact battery and renewable developers?

These market shifts aren't just relevant to utilities—battery and renewable energy developers will also need to adapt. While traditional PPA and tolling models will remain in regulated utility territories, expanded wholesale markets introduce new opportunities—and new complexities.

Projects in regulated states will have access to locational marginal prices (LMPs) in day-ahead markets, creating the opportunity for new offtake strategies and structures, including:

- Merchant participation in energy markets
- Tolling agreements indexed to LMP prices
- Virtual Power Purchase Agreements (VPPAs) with an off-taker elsewhere in the market

Batteries in particular will be able to benefit from the market structure. Instead of relying solely on fixed price tolling contracts, these assets can now earn revenue from energy arbitrage and capture market upside revenues through various contract structures.

While the market will dictate scheduling of these resources, each BAA will retain control of its transmission and resource planning process. This means that even if a project intends to operate as a pure merchant asset in EDAM, it still must follow the local BAA's interconnection process.

Overall, access to LMP pricing will provide optionality for developers and off-takers to structure contracts. However, doing so requires more sophisticated analysis and price forecasting to fully capture value and manage risk.

How can we forecast energy prices in CAISO and the broader EDAM market?

The problem of forecasting energy prices just got much more complex. Going forward, CAISO's day-ahead unit commitment problem will now be able to select any resource across any of the participating BAAs, and will have to deliver energy to load across multiple states, all while navigating a much larger transmission system. New generation, load, and transmission exponentially increases the optimization problem, introducing new price drivers, congestion risks, and volatility that traditional models might miss.

Not only will there now be LMP prices in these BAAs that previously did not have access to a wholesale market, but the new generation and load across the footprint will alter price formation within CAISO itself—potentially affecting projects already operating or under development.

To navigate this new terrain, CES is simulating the full EDAM footprint (including both committed and likely BAAs) in the PLEXOS production cost model. These simulations generate long-term zonal and nodal price forecasts throughout CAISO and each participating BAA.

CES then applies these forecasts in our proprietary CoMETs (Comprehensive Market Evaluation Tools for Storage) suite. CoMETs determines the optimal dispatch of standalone and hybrid storage assets to maximize multi-stack market revenues—including arbitrage, capacity value, and grid services.

As EDAM and Markets+ take shape, developers who understand the market mechanics—and invest in the right analytics—will be best positioned to unlock long-term value and stay ahead in the evolving Western grid.

Include any results?

Interested in learning more? Register for CES's upcoming webinar, **Charging Ahead: Positioning Storage for Success in EDAM**, where Devin will present our modeling efforts and outlook for BESS revenue potential in EDAM.

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Clean energy valuation expert with extensive experience supporting developers, utilities, co-ops, CCAs, and utility commissions to identify the right solutions for their system.